THE GENESEE FARMER.

Vol. V. ROCHESTER, JUNE 20, 1835. No. 25.

Published by Luther Tucker.

TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2,00 if payment is made at the time of subscribing.

☞All subscribers must commence with the volume, Jan. 1, or with the half volume, July 1. No subscription taken for less than six months.

THE GENESEE FARMER.

SATURDAY, JUNE 20, 1835.

Root Crops---Ruta Baga.

Every innovation in the existing system of farming should be received with caution; but this caution should never be carried to such an extreme as to prevent improvement for the better, nor to hinder our keeping pace with the progress of knowledge in the cultivation of the soil. The rapid advancement which Agriculture has already made in the present century, shows, that like all other arts, it is susceptible of great improvement; but unless new courses are occasionally marked out and pursued, and new experiments instituted, this art must always remain stationary. Had innovations *never* been admitted, many of the most common and most valuable modes of culture now pursued, would have still remained unknown; and many principles in the art, yet to be unfolded, will remain hidden so long as the beaten track alone is pursued. Some farmers indeed, are wholly opposed to every practice which was not followed by their ancestors, without at all examining its merits; and are not altogether unlike the man carrying grain upon his horse, who balanced it all on one side of the animal's back by a huge stone in the bag on the other, simply because his father and grandfather had done so before him.

We are not, however, about to recommend a practice which has been heretofore untried. For although the culture of root crops has received but little attention from the majority of farmers in this and the adjoining states, yet numerous experiments, made by individuals in various parts of the country, have shown that this branch of farming may not only be successfully pursued, but with the greatest advantage and profit. Judge Buel, who has cultivated Ruta Baga for many years in succession, has raised an *average* crop of *six hundred bushels* to the acre. Estimating the expense of one acre at twenty dollars, such a crop would cost but little over three cents a bushel. Judge Buel states however, that his crop, including manure, labor, and securing for winter, has generally cost him but from two and a half to three cents per bushel. But even if a crop should cost double this sum, still, it would prove highly profitable as food for domestic animals. A writer in the American Farmer, vol. 14, page 324, who raised five hundred and fifty bushels on one hundred and two square rods, (equal to eight hundred and sixty-two bushels to the acre,) estimated the saving of hay in feeding this quantity to his three hundred sheep, as equal to eight tons; and that the improved condition of the sheep was such, by feeding them hay and turneps, instead of hay only, that ten lambs would be saved for every hundred sheep. Besides the profit of cultivating this root as a substitute for hay merely, the eminent advantages it possesses in preventing diseases in animals when intermixed with dryer food, should not be forgotten. John Hare Powel says, "Too much importance cannot be attached to the production of esculent roots, to a certain extent, for the promotion of health, and useful secretions of neat cattle and sheep. Half the diseases with which they are assailed, proceed from indigestion or obstructions, occasioned by unwholesome dry food."

We will appropriate the remainder of this article to a few practical directions on the cultivation of Ruta Baga as a field crop, as the time is now approaching for a commencement of operations.

Sandy and sandy loam soils, where they are sufficiently manured, are considered best for this as for all kinds of turneps; but any rich, dry, and mellow soil is good. The more however it inclines to sandy loam the better. Clay is the worst, and wet soils are wholly unfit for its culture.

The time for sowing should be about the middle of June, but the crop will generally succeed well if sown two or three weeks later. At least one pound of seed should be sown to the acre, although one half of this, if the plants were properly distributed, would be abundant. But they are easily thinned afterwards, leaving an even crop.

The following is a common mode of preparing the ground. It is first deeply ploughed and then harrowed; furrows are then run at distances of two or three feet apart, by passing the plough twice in the same place; and in the bottom of these furrows suitable manure is to be placed. A plough is then passed on each side of the manure to cover it, forming a ridge, on which the seed is sown in drills. A little fine manure scattered along the drills before sowing, is very advantageous, by bringing the young plants forward rapidly, so as the sooner to be beyond the reach of the fly. Those who have no drilling machine, will find a very convenient substitute by adopting the mode described by W. R. Smith in the eleveth number, current volume, of this paper.

Another method is to transplant ruta baga from a bed previously sown; this admits of its being done nearly a month later than the ordinary mode, so that it may occupy ground from which a crop of the present year has been previously taken. This, although a successful practice, is troublesome and expensive when adopted on a large scale, and is not therefore to be recommended for field culture.

In preparing ground for ruta baga, Judge Buel says, "My general practice has been to manure well a piece of pasture or clover ley from which the hay has first been cut, plough it handsomely over, and harrow it well."

It has been recommended instead of dropping the seed evenly along the drills, to drop a few in bunches about one foot apart; and then in thinning, all but the most vigorous plant in each bunch are removed. This method also better admits of the young plants standing until beyond the reach of insects, as they may be hoed in the rows before thinning.

A cultivator should be passed between the rows as soon as the plants are large enough to be seen, and the spaces between the plants cleared with a hoe. A very essential point is to keep the crop clear of weeds, and this should be done in the earliest stages of their existence, when the labor will be comparatively small, and the injury still less which they will occasion to the crop.

Although there are some parts of the country where this crop will not succeed so well as in others, yet probably in most places, it may, with care in selecting a suitable spot of ground and other attention, be made to yield a profitable return. At all events we would recommend to farmers generally to try the experiment upon a moderate scale. And let no one be deterred on account of the partial failure of a first crop. Experience and perseverance will overcome most difficulties.

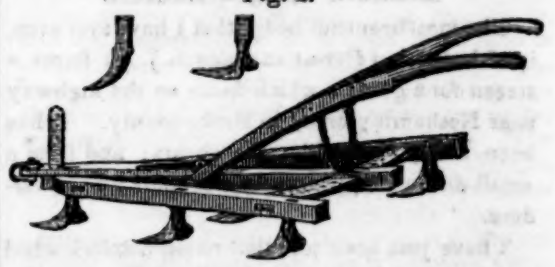
From an article in the last number of the Cultivator on this subject, we select the following remarks on the improved implements now used in the culture of Turneps:

The Implements used in the Turnep culture, which are figured below, are useful for various other purposes on the farm or in the garden. They are, (*fig.* 1,)

Fig. 1.

THE DRILL-BARROW, which is made in different forms, and is used in sowing various small seeds, as onions, radishes, lucern, beans, peas, &c. The machine is propelled like a wheel-barrow, and sows and covers the seed at the same operation. The cut represents the one we have in use. They are manufactured by Mr. Craig, of Galway, and sold at $8. A barrow somewhat differently modeled, has been invented in Lewis county, which has been highly commended for its value in planting corn. Price $15.

Fig. 2.



THE CULTIVATOR, (*fig.* 2,) is the most useful implement we know of for dressing Indian corn, as well as ruta-baga. By being passed frequently between the rows, the ground is kept free from weeds, and in a fine state of pulverization, while the manure and vegetable matter is left under cover, where it is most beneficial, and the roots of the plants preserved from injury. It should be passed twice at a dressing, and if the soil is stiff or grassy, it may be passed oftener, or repeated at short intervals. The teeth are of various forms, according to the purposes for which they are used. Some of these are figured in the cut. It is most convenient to have sets of different kinds, and the

cost is trifling, that they may be shifted at pleasure. Our late excellent neighbor, Joseph Bullock, used effectually to extricate the quack grass in his corn ground, by the frequent use of the cultivator, the teeth of which he had modelled for this purpose. They are manufactured by Mr. Craig, and, together with the drill-barrows spoken of, kept for sale by our enterprising friend, C. N. Bemet, who is making some improvements on both these implements. The cultivator is often denominated horse-hoe, scuffler, scarifier, &c. It has sometimes a wheel attached forward, to regulate the depth.

Fig. 3.

The Turnep Hoe, (*fig.* 3.) is a very simple, but useful implement, particularly in the garden, where it greatly facilitates the weeding process. We have them of various lengths, from four to ten inches. They should be of cast-steel, and may be made of an old file or rasp; the blade should be thin, and not more than one and a half or two inches broad. They may be drawn the arm's length without being raised, and there is little danger of cutting the plants among which they are used.

Remarks of a Traveler.

(CONTINUED.)

Wild Flowers.

Seeing some plants of *Epigæa repens* by the road side, I stopped to procure a specimen; and on taking it from between the stones where it was slightly protected by old leaves, I was surprised and delighted at the freshness and fragrance of its flowers. These were shaded with rose color, and I have never seen any of Nature's painting that was more delicate.

Polygala paucifolia is another tenant of the wild woods. It is also a most desirable flower. It grows in small patches, on the sides of the barren hills; and exhibits its rosy corols in superior beauty.

In the cultivation of these plants, I have not been successful; but they well merit further exertions. A thin soil, underlaid by earth of the most steril character, seems necessary to their full development; and I strongly suspect it requires to be tinctured with some of the vegetable acids.

—

Hemlock Hedge---Laurels.

The most beautiful hedge that I have ever seen, is of hemlock (*Pinus canadensis.*) It forms a screen for a garden which fronts on the highway near Neshaminy creek in Bucks county. It has been neatly dressed by the shears; and from a small distance appears like a regular wall of verdure.

I have just been told that rotten hemlock wood should be well mixed with the soil where the young trees are to be planted, as they fail in many places without this precaution. I had previously come to the same conclusion in regard to Rhododendrons and Kalmias; and some of the finest and most vigorous of the thousands that I have seen on this journey, grow among the moldering ruins of fallen hemlocks.

Cultivators of new hemlock lands, can scarcely have failed to notice the sour smell of this timber when in a state of decay; or that it has a deleterious action on crops of grain. The old homely proverb, "what is one man's meat is another's poison," may be a little varied and applied with still greater propriety to different plants; for in truth the sour soils that nourish some kinds in great luxuriancy, are directly *poisonous* to wheat and Indian corn. Certainly I would not exchange the fertility of our lands for all the beauties of Flora; but I would be willing to poison a small part of my garden for the purpose of growing a few plants of such extraordinary beauty as the Rhododendrons and Kalmias.

Horticultural Festival.

The summer meeting of the Domestic Horticultural Society of the Western part of New York, will be held at Geneva on Friday the 3d of July, at which time the usual Premiums for Vegetables, Fruits and Flowers, will be awarded. The committee of arrangements are James Rees, S. M. Hopkins, Bowen Whiting, E. Cutbush, W. S. Dezeng, A. W. Langdon, and J. Fellows, Esqs.

The Cultivation of Wheat.

The following paper on the Cultivation of Wheat, was read before the Agricultural Society of this State at its meeting in February last, by H. Hickock, Esq. of Rensselaer county:

There are two causes which, when our winters are open, operate injuriously on wheat crops.—One is, the high and dry winds, which prevail in March; these blow off the soil in many situations, and by leaving the roots of wheat exposed, occasion their destruction. Another cause, is the heaving of the soil, occasioned by the alterations of cold and warm weather. The water in the soil, in the act of freezing, expands and raises up the earth, and also the roots of the wheat plants which the earth embraces when a thaw succeeds, the earth being heaviest, falls down first and leaves the roots of the wheat a little elevated, and by repeated changes of the weather, the roots are so far thrown out as to perish.

Farmers, when convenient, usually sow their winter grain early in September, upon a supposition which guides their common practice, that grain thus early sown withstands best the action of unfavorable seasons. This supposition, is founded upon the very plausible theory, that as the oldest roots will be longer and more numerous and take a firmer hold of the soil than those which are younger, they will be less exposed to be thrown above it, and at the same time. from their greater strength, be more tenacious of life. But experience informs us, that wheat, sown as late as the first or even the second week in October, very often survives with less injury than that which is sown in the early part of September. Indeed farmers very generally admit, as the result of their experience, that rye, whose laws of vegetation must be nearly the same as those of wheat, sown so late in the season as barely to come up, is most likely to withstand an unfavorable winter. Still the very plausible theory, which has been mentioned, very generally induces them to sow rye early as well as wheat, in direct opposition to conclusions, which have been drawn from actual observation.

An experiment was made last autumn for the purpose of collecting some further information on this subject. On the first day of September last, I excavated a spot of ground six feet square. On the one side, the excavation was about six inches deep, on the opposite side, its depth did not exceed one inch. Seed wheat was placed over the bottom, so that the kernels were about four inches distant from each other, the excavation was then filled up. The soil was a suitable mixture of gravel, sand and clay, for wheat; and of ordinary fertility. This was the latter part of the extreme drouth which prevailed last summer, and the soil was dry, warm and finely pulverized before it was thrown on the wheat. The circumstances, except the extreme dryness of the soil, were highly favorable to the vegetation of seed at the greatest depth in the earth. On the fourth of the month there was a heavy shower which not only wet the soil, but beat it down close and hard. On the ninth of the month, the plants began to show themselves; but none came up from a greater depth than about three and one-half inches. Two or three days after the second leaf had displayed itself, some of the roots were taken up and examined. It now appeared that nearly an inch below the surface of the ground, a new joint was found which was the basis of the second leaf, and also of a new system of roots. There were now two tiers of roots; the seed or knot adjoining it, had generated the lower tier, and the new joint the upper one. These two tiers or systems of roots were connected together by a root resembling a cord or thread, and in one instance, I cut off this connecting thread and transplanted the upper part. This grew with little apparent check from its curtailment; but the under part died, altho' the soil above it was opened so as to afford it the advantages of air and solar heat. On the 20th day of September, I examined another plant, which had its regular formations as expected, and, what was not expected, a blade was discovered about an inch long, which had started from the lower system of roots and would doubtless have ound its way to the surface, had it not been disturbed. It is to be remarked, that this plant sprung from seed placed under cover of nearly four inches of soil, which was about an inch deeper than any of the other plants examined, and that some of the tops of the wheat plants had been eaten off and trodden down by accidental intrusion; a fact unregarded at the time. On the 26th day of September I examined another root, expecting to see the blade from below more perfectly developed, none however was discovered; but a third tier of roots was found at the surface of the ground, which proceeded from the second as that had from the first system of roots. On the 16th day of October I placed some seed wheat about two inches in the ground; their delay in coming up induced me to suppose that they had perished from cold and wetness; but at the expiration of three weeks they made their appearance, and although the ground remained open several weeks longer, no second leaf appeared, of course no joint or second system of roots had been formed. The very different formations in the roots of wheat, which this experiment has disclosed, proceeded from causes appropriate and capable of being ascertained, but to distinguish them with certainty, other trials must be made and conducted with greater accuracy than the one of which an account has been given.

From these experiments, though inaccurate, some conclusions may perhaps be drawn of practical use. All plants which live over winter, possess an apparatus, by which they supply themselves, in autumn, with food for their sustenance in spring. This food consists mostly of saccharine matter, which is enclosed in a proper receptacle. When this receptacle is formed near the surface of the earth, the fermentation of its contents is excited by frequent changes of weather, the saccharine matter is decomposed, and the plant perishes from the want of food, and perhaps also from a rupture of its vessels.

All wheat, shallow-sowed, must have its reservoirs of food but slightly covered with soil, and course they are fully exposed. When wheat is sown early at any depth, a second and sometimes, a third system of roots is formed within an inch of the surface. In these, many stems originate, each of which has its receptacle of nourishment at its base, and it is quite certain that in most instances, the food which was contained in the seed and the adjoining knot is entirely exhausted by the supplies of nourishment it affords the upper portions of the plant. The life of early sowed wheat must then, like that which is shallow sowed, depend upon the preservation of the reservoirs of saccharine matter which are placed at or near the surface of the ground, and of course exposed to the unfavorable action of variable weather during winter.

Wheat which is late sowed, generates no set-

ond blade or new system of roots, and of course, the nourishment for spring's use is retained in the receptacle which adjoins the seed. If then we sow sufficiently late in autumn, and place the seed deep in the soil, we shall provide every security against the hazards of bad weather, which the nature of the case admits of.

In the ordinary course of husbandry, some of the wheat is necessarily deposited at considerable depth in the soil, and when this takes place sufficiently late in the season, the receptacle of food will be protected by its covering of earth, and a partial crop will often be realized, although there may be, when the spring opens, no signs of life on the surface of the field. In such cases as the destruction of the blade, which issues from the seed-roots in autumn, can be of little importance, one would suppose, that the surviving plants will grow the more vigorously, from their being less in number, and by tillering produce many stems with large well filled ears; such, however is not the fact; usually the stems are single and the heads are not large. To account for this, it must be recollected, that after the ground has thawed in the spring, the earth settles and often becomes so extremely hard that doubtless many plants die, in their struggle to overcome the opposing resistance, and the surprise is, that any one should possess vigor enough to protrude even a single stem through the hard earth that covers it.

From this view of the subject, the practice may be recommended, of effectually harrowing the field in the spring after the ground has settled, in order to supply the plant with fresh air, and give a free passage to its upward growth. After the harrow has been used, the roller ought to be employed to reset such roots as have been displaced and diminish the evaporation of moisture.

In England, a wheat plant has been taken up, separated into eighteen parts and replanted, and by successive divisions and replantations, a crop of three and one-third pecks of wheat was obtained in less than eighteen months from the time the seed was sown. If the roots of wheat can be so minutely divided and successfully replanted, there is little danger that the freest use of the harrow can be injurious, provided the roller be also used. The fact appears to be, that nothing is necessary to the vernal growth of the plant, but the preservation of the apparatus which contains the saccharine matter, which is its proper vernal food; so that if the roots and top be cut off, and the bulb be planted in a genial soil, the plant will grow.

Notwithstanding the arguments which have been urged in favor of sowing wheat late, it must be conceded that when early sown and our fields are cultivated in the usual manner, it produces the largest crop, if it survive the cold season. Whether such improvements may not be made as to combine the benefits of a sure and large crop, is a question still open to investigation; the probability is, that both advantages may be secured, by a more correct knowledge of the proper time to sow, and of the best methods of culture.

In the first volume of the transactions of the society for the promotion of agriculture, arts and manufactures, instituted in the state of New-York, it is stated that in Huntington, Suffolk county, fifty-two bushels of wheat had been raised by manure on an acre of land, and Mr. Downs is said to have raised, on a poor, gravelly, dry soil, by the use of fish as a manure, at the rate of 128 bushels of rye per acre. In this case, the rye would doubtless have lodged and been of little value, were it not that it was twice eaten off by his neighbors' sheep which broke into the lot; once when the rye was 9 inches high, and again when it was about 6 inches high.

The production of so large a crop of wheat and of rye must have proceeded from causes which are steady and uniform in their operations, and if all the circumstances which had occurred to produce them had been distinguished and noted down, similar crops might have been again raised. Some things which occurred during the cultivation of this rye crop may be ascribed to accident or chance, so far as Mr. Down's sagacity was concerned, but the causes which proximately occasioned the crop, did not work by accident or by chance, but agreeably to the laws or rules from which they never deviate. This uniformity of operation lays the foundation for making future discoveries, and brings within the grasp of our faculties the knowledge of increasing our crops by methods the least laborious and expensive.

The period may arrive when the farmer shall pursue his methods of culture with an anticipation of the consequences which will result, analagous to that of the mechanician in the construction of a machine, and when, by direct means, he shall produce greater crops than ever were obtained by mere empirical trials.

Time was when the greatest philosophers taught the doctrine, that all things pertaining to the surface of the earth were too irregular and too much under the government of chance, to admit of scientific inquiry; this error has, within the two last centuries, been dispelled. But a similar error, in regard to rural affairs, is embraced by almost all our practical farmers, and the task of correcting and exposing it is devolved, it would seem, upon the unaided efforts of a few individuals. Here then is the difficulty.

Making Clover Hay—in Cocks.

A friend of ours the last season cured his clover in the manner recommended in the subjoined extract from the Cultivator; and we hope the publication of this article will remind him that he may benefit others by furnishing a detail of his experiment, and the conclusions he came to on the subject, for publication in the Farmer:

Nothing is so hard to combat as the prejudice of farmers, who think they can learn nothing in their business. We have often recommended curing clover hay in cocks, as the means of doubling the value of this kind of hay, besides lessening the expense of curing it. Many good farmers and intelligent men, have ridiculed the process, because it run counter to their practice, and was what they could not reconcile to their ideas of good management. But they would never make the trial; if they had done so, they would have seen that they were wrong, and we right. We beg leave here to say, that in many districts of Great Britain, spreading hay from the swath, or tedding it, is going wholly out of practice, as causing unnecessary labor, and as diminishing the value of the hay. But they are not blessed with our ordinary sunshine and heat in the haying season.—The hay curing process, with them, is a business of some days on account of their comparatively cool climate and humid atmosphere. But with us when the grass is matured, and thin, and the weather good, it is often the business of a day.—But this cannot be the case with us with early-mown hay, particularly where clover abounds.—The grass is then full of juices, and the succulent stalks of the clover require time, as well as sunshine to part with their moisture. Spread and exposed to a hot sun, the leaves, blossoms, and exteriors of the stems soon dry, but in drying the exterior of the stems become indurated, and refuse, like wood painted when green, to part with the interior moisture. The consequence is, the grass must either be housed in this half-cured condition, and spoil in the mow, or if the curing process is completed, so as to prevent damage, the leaves and blossoms, which constitute the best parts of the hay, are over dried, crumble and are lost. Cured in cock, every part of the grass, whether the leaves or the thick stalks, dries alike, and is alike preserved, and the evaporation of moisture goes on I believe in even wet weather; for a partial, though in no wise a prejudicial fermentation takes place, and the rarified air which it generates, being specifically lighter than the atmosphere, is constantly passing off.

We have been induced to these remarks, at this untimely season, in consequence of finding in the Farmer and Gardener, an agricultural paper published at Baltimore, a communication from John Smith, fully confirming the utility of our recommendation and long practice. It would seem that Mr. Smith was led to make the experiment rather from necessity than from choice. But we will let him tell his own story.

"It will perhaps be recollected," he says, "by all attentive agricultural readers of that paper (the American Farmer) that it was recommended to farmers to put their hay, in its green state, or as soon as cut, into small cocks, and cure it by sweating.

"When I commenced cutting my clover hay the present season, the prospect for favorable weather was flattering, but in a short time it changed, and it became evident we should have a wet spell. I then dropped the scythes and put all hands to putting up the grass (then perfectly green but exempt from external wet) into cocks of about 200 pounds, cured hay, building them compact and high, to avoid the introduction of rain as much as possible. Rain came on before I secured all the cut grass, but the next day was fair, and I succeeded, by unremitted attention in getting the water dried out of the remainder, and put it up in the same way. *It continued rainy* TEN DAYS, and afforded no opportunity to cure in the sun; the cocks were examined daily, by running the hand and arm into them, and contrary to all expectation, gave no indications of fermentation.—At the end of ten days the weather became fair, the cocks were opened *and found to be in a perfectly sound condition*, except so far as the rain had penetrated, and the external wetting alone, in my opinion, made it necessary to open it at all. Tell farmers they need not fear losing their hay on account of unfavorable weather at harvest. I have never seen worse weather in hay harvest, *and I saved mine entirely well.* IT IS MOST EXCELLENT HAY."

Our practice has been, except in cases of necessity, like the one above, to let our hay wilt in the swath, that is, to cock in the afternoon, that which is cut in the forenoon, and to have the cocks not to exceed fifty to seventy pounds hay when cured. We are glad to see that a larger quantity will cure well. Let it be remembered that the cocks must not be made by rolling, but by placing with a fork one layer above another, till the cock is completed.

The Winter

Has been less hurtful to fruit trees in this neighborhood than was expected. Most of our peach trees are shooting forth their foliage, though their blossom buds have been destroyed here, as we believe they have generally been in the northern and north-western states. Although, as we learn, the plum, and even the apples trees have been seriously injured south of us, we hear no complaints of injury here. Hardy grape-vines, left upon the trellis, have been injured in their fruit buds, and in some instances they have been killed down to the ground. We owe our exemption from greater injury to the snow which formed a good covering to the ground at the time of the severe could weather. Our practice is, and we recommend it as a wise precaution to others in our latitude, to take our Isabella and Catawba grapes from the trellis when we prune them in the fall, and either lay them close on the surface, or cover them slightly with earth. The magnolias, catalpa, paper mulberry, ailantus, Chinese arbor vitæ, evergreen thorn, and other exotics, have suffered more severely than ever before known. Plums will give but a light crop of fruit, but the apple and pear promise abundantly.—*Cultivator.*

Singular Case of Fortitude.—Two days ago a gentleman in Kentucky, near this city, purchased three slaves, a man, his wife and child. The man was exceedingly averse to being sold, and declared before the transfer was made, that he would never work for the gentleman who proposed to purchase him. The bargain was completed, however, and immediately the man slave retired to the yard, laid his left hand upon a block, and with a hatchet, at a single blow, deliberately severed the hand from his arm!—*Cincinnati Whig.*

COMMUNICATIONS.

"Quarrels of Zoologists."

BY H. B.

Under this head Littell's Museum of Foreign Literature for June, contains a second letter to Professor Jameson, of the University of Edinburgh, from Charles Waterton, Esq., in which Audubon's account of the "Passenger Pigeon," is subjected to a severe, and in many respects an unjust criticism. The real pleasure we have experienced in reading Audubon's many graphical communications to the public, induces us to point out some of the errors which the critic has put forth with such confident assurance. We are enabled to do this the more readily, from having witnessed several of the almost innumerable congregations of pigeons at the west described by Audubon, and which has drawn from Sir Charles Waterton the criticism already alluded to. Had the critic ever visited one of these "roosts," mentioned by Audubon, we are confident his remarks would have been less highly seasoned with imputed falsehood, and his censure would have given place to commendation of the *general* correctness of their description. The critic, after adverting to the number of pigeons mentioned by Audubon, makes the following quotation from his remarks: "Many trees two feet in diameter I observed were broken off at no great distance from the ground." This was done by the weight of *pigeons* on their branches. After inviting the attention of the Professor to this, as though it were a *palpable* falsehood, Sir Charles attempts to prove it so by the following sneering remarks: "Now, sir, you ought to have known that no weight in the world, acting with a downward pressure on the branches of trees, could break the upright boles of those trees at no great distance from the ground." This may be perfectly satisfactory to Sir Charles as to the falsity of Audubon's relation, yet we would reply in his own language, that he "ought to have known" that "the boles" of *all* forest trees are not "*upright*," and that consequently, weight applied to their branches would act with a *lateral* "pressure," and if sufficiently increased, would undoubtedly cause their prostration, either by breaking them "off at no great distance from the ground," or by upturning them by the roots, both of which have happened by the "weight" of pigeons on their branches, whether Sir Charles believes it or not. The latter we have seen accomplished on a hemlock, not greatly variant in size from those mentioned by Audubon, and we would add that from twelve to fifteen dozen pigeons, killed by the fall of the tree, were gathered up the next morning by a person well known to us, and their feathers appropriated towards furnishing a numerous but indigent family with beds. It is proper to remark, that the tree here mentioned stood on the declivity of a hill, which would render its prostration the less difficult. This may have been the case of those mentioned by Audubon, or they may have been so much inclined as to render their prostration inevitable from the weight of the pigeons congregated on their branches. Were a tree to stand perpendicular to a plain, and its branches to present equal radii, and the weight on each uniform, the argument of Sir Charles would be conclusive, but as such perhaps is never the case, it falls entirely short of the intended object.

The criticism on the "solid masses of pigeons as large as hogsheads," occasioned by their lighting on each other, is doubtless just, though covering as they do all parts of the branches of the trees, the inconstant flickering of a torch light might easily create such an illusion, and should shield a description so generally just as Audubon's from the sweeping condemnation of the critic. Whether their influx to the "roosts" continues till after midnight, we are not, from our own observation, enabled to say, having never been particular as to the time, but we have known them to arrive at the *roost* long after dark. The truth is, their hours of repose in their congregated state, are not so uniform as when in their isolated state of incubation, and consequently any conclusion drawn from this source in relation to their late flying, must be in a great measure defective. The time of their leaving the roost in the morning would depend measurably on the time they arrived at it the preceding evening, as the calls of hunger would be sooner felt by those which arrived first, than by those which arrived at a later hour. We have seen many lingering on the roost till eight or nine o'clock in the morning.

The sneers of Sir Charles about the noise made by the congregated pigeons are entirely without point, as every person who has visited a roost can testify. The first visit ever made by us to one of these resorts, was induced by the noise they occasioned, (which resembled the dashing of the surf of the lake against the beach after a blow,) and yet the distance to the roost was, on a direct line, at least *four miles*. The one here alluded to, covered an area of from ten to twelve acres, through which a road had been partially opened, and when they had roosted there two nights, the road became impassable from the quantity of branches broken off by the pigeons.

Indeed, it is to this cause that the continued noise they make is principally attributable, since the fall of a limb rouses thousands from their resting places, and by seeking new ones on branches already strained to their utmost tension, the same result follows, and thus on through the night.

The assemblage of wild beasts at these *roosts* mentioned by Audubon, comes next under the knife of Sir Charles, and the assurance with which he uses it is really amusing. We would premise our remarks, however, on the questions so confidently, and we would add, childishly asked, by observing that we have never seen *all* the beasts mentioned by Audubon at these "*roosts*," though some of them we have, and it would be nothing strange if, in places where they abound, and remote from settlements, they should be *all* found as described by Audubon. On this Sir Charles confidently asks, "What brought all these wild beasts to this particular spot? Did they calculate that men would assemble and kill the pigeons for them?" &c. A desire for food brought them there no doubt, as it often does to poultry houses, and no matter of marvel either. They do not probably "*calculate!* that men will kill the pigeons for them," but they do expect or "calculate" to get pigeons to eat on such occasions, nor are they disappointed. They get them too without either climbing or *flying!* for them, but by simply pouncing on them as they sit on the ground or on the low bushes. In the confusion of the roost hundreds find their way unwittingly to the ground, nor will they often attempt to regain their places aloft till the appearance of daylight, and while thus situated they become an easy prey to Foxes, Wolves, Martins, Opossoms, Skunks, and in fine, to the whole carniverous tribe inhabiting the surrounding woods. A dog which accompanied a party of us to one of these resorts, gave abundant evidence of the facility with which pigeons may be taken by the animals above named, in the abundance which he caught, though he seldom did more than to secure them with his paws till they were released by some of the party.

Whether Audubon's account of the rattle snake swallowing full grown black squirrels *tail* foremost be true or false we shall not pretend to determine, but would remark that we have heard people residing on the "Western Reserve" say they had killed rattle snakes with full grown black squirrels in them, but whether they were swallowed *head* or tail foremost, they did not inform us. In conclusion we would state that Sir Charles criticises many of Audubon's stories severely, but we believe justly, but his general remarks on the Passenger Pigeon are excepted from this admission. Audubon's descriptions of western scenes will be read with avidity, though they should owe some of their novelty to the fancy of the author instead of the real character of the objects descried. H. B.

Inquiries.

BY UNUS.

Mr. Tucker—I desire to make a great many inquiries, and hope you, or some of your numerous correspondents, will be able and willing to answer all:

Bacon.

I desire a particular account of the manner of curing ham and bacon in Virginia. I know that their ham brings more in market and eats much better than any I have met with in New York. Why is it that our ham is not as good? Do not farmers in New York generally think that their ham is equal to that made any where? I however *know* it is not.

Rats.

Can some one tell how to avoid the innumerable multitude of rats that are overrunning the country. I know that much might be done by building our houses, cellars, outhouses, &c. &c. in a proper manner. But I have the misfortune to possess those buildings erected by others, and built without any reference to avoiding rats. They are so numerous about me as to carry off my young chickens, goslings, &c. &c., besides filling my cellar and drains with dirt—gnawing into every box, chest or dish—eating holes in every bag that accident or carelessness may place within their reach, and carry off all my eggs. From an estimate, I find I might better keep an extra cow than my quota of rats. My rats know too much to eat poison, and if they would, the stench that their carcasses would make would be worse than their trouble. I have heard of some animals called "Ferrets" that would prove an exter-

minator. Can some one say what are their habits, and where they may be obtained?

—

Peas.

This is the most useful of all grains for preparing ground for wheat, but there is one objection to raising them, to wit—they get so full of bugs here as to almost ruin them. Can some one give a history of these bugs through all the stages of their existence? and why it is that places not more than 50 or 80 miles from here are exempt from the curse? Could a correct history of these be given perhaps something might be done to prevent them from infesting the peas. There is one method of harvesting peas, that I presume may be new to many farmers. To cut them with a scythe is tedious and expensive. When fully ripe they may be raked with a patent revolving rake without any cutting. Two horses, a boy and a man, will rake ten acres in a day. This is getting over with it at once.

—

Hussey's Grain Cutter.

Although I am naturally incredulous, still I am forced to believe from the certificates furnished that it will do the work to advantage. I should therefore wish to be informed of the price of it, that I may judge whether I am able to possess such a machine.

—

Sugar Beet.

I saw some account in your paper of the advantage in raising this root, and I should like to know whether any rule can be laid down whereby a novice can make sugar therefrom on a small scale, for the purpose of ascertaining the practicability of going more largely into the culture of the root and manufacture of sugar.

—

Egyptian Clover.

A few years since this variety of red clover was introduced in the middle section of this state, and from what I saw of it I was exceedingly pleased with it. It produced feed much earlier than the common kind of small clover and much more abundantly. It produced one crop of hay and then had sufficient time to ripen seed the same season. Can any one say where and of whom the seed may be obtained? UNUS.

Successful Stock Management by SMALL FARMERS.

Moses Greer, of Corlust, was entitled to the first premium, for best stock, fed upon the smallest quantity of land. It appeared that he had fed his stock of four cows and two calves upon the astonishing small quantity of one acre and two roods of land all summer—being about one rood and four perches for each cow, after allowing for the calves, and had three roods of turneps and one of rape for winter.

Moses Greer being called on to give an account of his farming, said: "My lords and gentlemen, I hold eight acres and three roods of land, which I have now got into the highest condition, and I shall in future be able to keep it so without going to the expense in lime which I have heretofore been at, by reason of the great quantity of manure I make from the increased stock of cattle, consisting of four cows and two calves; and it will surprise you to hear, *that this stock has been fed this last summer, and up to the present time, on clover and vetches, upon the identical same piece of ground which, when formerly in grazing, fed only one cow and that very poorly.* My land is held partly at 23s., and part at 8s. 3d. per acre; and my rent amounts to 7*l.* 14s. 6d. yearly; and I have already sold butter to the amount of 11*l.* 4s. clear of all deductions, and have had enough of milk and butter for myself and family besides. The abundance of manure has enabled me to set as many potatoes as my neighbors, holding the same quantity of land, and I have as much crop too, besides having my turneps likewise. In conclusion, I am satisfied there is no way in which land can be made to produce so much, or in which it can be brought into such heart, as by the soiling system and four course rotation of crops, from which I expect every year to derive greater advantages; as I may say, I am only just now beginning to feel the benefit arising from it; my land being now all perfectly clean, and not any of it whatever in pasture."

James Rolsten, being next called on, said, "I am likewise an advocate for green feeding; I had more clover than fed all the stock I had, although I had more than doubled it; and I was enabled to save three five-fathom cocks of hay, which will leave me all my straw for manure. After cutting my early vetches, I sowed the ground ridge as I cut it, with rape, which I am now cutting a yard long and giving to my cattle, so that I shall not have to begin to use my turneps for some time; and it will be again fit to cut in April next, when the turneps begin to fail. I have also levelled every useless ditch; and my land instead of being exhausted by the four-course rotation, is every year becoming better."

Mr. Ingram said, "I am still of the same opinion as I have formerly expressed, of the benefit to be derived by green crops and house-feeding, which I continue to practice. I find I can thereby increase my stock and my crop also, and have manure for my potatoes and turneps; besides, by this means, I find my land improving under the four-course rotation: and though I am paying according to a late valuation, I am still able to say, as I said last year, I shall be able to make my rent from my dairy."

Thomas Bruce said "when I came into possession of my farm in 1831, there was no more than about half an acre of potato ground; and this in such a dirty, bad condition, that it had to be dug over with a grape, in order to clean it before it could be sown with grain and clover seed. The rest of the land was in a miserable exhausted state, not fit to produce anything; and I was then possessed of but one cow, and had no meat to feed more; that year I sowed a few turneps upon what manure I had to spare, by employing lime compost for my potatoes; and the next spring, between compost and cow-house manure, I was able to set an acre and a half of potatoes, and half an acre of turneps. That year I was able to house-feed, upon the clover and some vetches, two cows and had plenty of them all winter. Next spring I had so much manure, that with some assistance from lime compost, I was able to set two acres and a rood of potatoes, and three roods of turneps; and having sowed more clover, I was enabled that season to keep three cows and a horse, which stock I still have, with the addition of a calf, and have fed them this season on five roods of clover, two roods of vetches, and one rood of grazing, which being chiefly on a rocky bottom cannot be broke up; and if an acre was allowed for the keep of the horse, and twenty perches for the calf, this would leave only one rood and four perches for the summer feeding of each cow; and this, with one rood of turneps for each during winter, (which would allow, at 34 tons per acre, near 90 lbs. a day for each for seven months,) would only make 84 perches, or a little more than half an English acre for the year's keep; and I have a rood of rape as a stolen crop besides, so that I have plenty of food for them; and my land is improved to such a degree, that there is more than three times the return from it than what it formerly gave, and I shall now be enabled to keep it in heart by the manure made by house-feeding without any of the expenses for lime which I have been formerly at."

Mr. Bigger stated, that he held about five Irish acres of land; that he formerly kept but one cow, and had barely food for her. He now kept three and an ass; and part of the year a horse; and after all had clover to spare, to consume which he had bought fourteen young pigs, some of which he still had, and was feeding on potatoes; and had besides sold off the same farm 10*l* worth of wheat.—*British Farmer's Magazine.*

A Newly Invented Cultivator.

A letter to the editors of the National Intelligencer, dated Mount Carmel, (Illinois,) May 14, 1835, gives the following description of a newly invented machine, called the Cultivator.

"By way of conclusion, permit me to tell you, that the Yankees are undone! A *Kentuckian* has invented and brought to this place, a machine called "*A Cultivator*," to be employed in our prairies, which is now undergoing a thorough trial and answers admirably. It ploughs, drops, (plants,) covers, and smooths the rows after the corn is planted, and harrows the ground at the same time. After planting is over, the plough is taken off, and the harrow is employed to cultivate the corn, and hill it. The same department of the machine which is attached to the harrow, and covers the corn, is then employed in hilling it. When this process is over, then the plough is attached to a stock, and ploughs the centre of the rows, having mould boards, throwing the earth both sides. When this is over, the harrow is employed again, by dispensing with the hilling department. Several machines have been manufactured here, and distributed through the prairies of the Upper Wabash, and give general satisfaction. Two horses and a boy can do the work of *six* or *eight* hands. The original machine has been prepared for planting, and tending cotton in the same way, and sent to Georgia with that view.

By a postscript the writer observes that, "except as to dropping, the machine, he thinks, can be employed in the cultivation of the sugar cane, and the inventor is of opinion that it can be arranged so as to plant potatoes, beans, &c. just as well as corn."

Should this *machine* answer the purposes of its construction, it will produce as great a revolution in agricultural pursuits, as did the cotton gin, and tend to diffuse its benefits more generally, as there will scarcely be a branch of husbandry, in which human labor will not be materially lessened, the cost decreased, and consequently the profits of agriculture greatly enhanced. But while we are always highly gratified to notice the march of the arts in its conquests over mere physical force, we are bound in candor to say, that we invariably make all the allowances for the zeal of inventors, when we read of the triumphant results of their geniuses; for the weakness which induces one to see nothing but perfection in his own works, is a feeling bearing so close an affinity to virtue, as to be almost identical with it, and hence it is, that prudence would dictate that a judgment less partial than that of their paternity, should be called upon to decide on the merits of inventions intended for public benefit, and we know of no tribunal which can be so fully trusted, as that very public itself.—*Farmer and Gardener.*

On Irrigation.

The Committee of the Essex Agricultural Society, consisting of Daniel P. King, Chairman, and others, report:—

"That their attention was invited by Mr. Ebenezer Jenkins, of Andover, to four acres of mowing land, on which he has been making an experiment in irrigation. The field is a sandy gravel, the kind of soil most capable of improvement by watering, and so situated as to be flowed at pleasure. Mr. Jenkins bought of a neighbor the use of the water and the privilege of digging through his pasture for ten years, for twenty dollars; he then built a dam across a constant stream and made a channel about fifty rods in length; by means of this and other smaller ditches, he conducts the water on to his field in such quantities and at such times as he thinks proper. Mr. Jenkins states that it is his practice to bring the water on the last of April, and to stop flowing about the 25th of June. In the spring of two years out of the four that his land has been in a course of experiments, he has applied a very light top dressing. The experiment has been successful, and creditable to the enterprize of Mr. Jenkins: the average crop of

grass for a number of seasons, according to the statement of several disinterested and judicious farmers, had not exceeded 10 cwt. to the acre; for the three past years it was nearly equal to 30 cwt., and the present season, was judged to be two tons to the acre; the quality of the hay is good, and it would command a fair price in the market.

Irrigation, though long and extensively practised in other countries, has been but seldom attempted here. That it might be profitably employed by many farmers, is probable; that it has been so employed by Mr. J., is certain. We will offer him a few suggestions; if the trial should not prove them to be improvements, he will have the additional merit of having extended his experiment; and having proved many things, he can hold fast to that which is good.

We think he should commence flowing earlier in the spring, and draw off the water sooner than the 25th of June; his grass would be ripe earlier,and by bringing on the water directly after the hay is housed, he would probably secure a heavy second crop. If this top dressing were applied in the fall instead of the spring, it would protect the grass in the winter, and might be productive of greater advantage. Mr. J., in his statement, remarks that "observation and judgment are required to know how and when to apply the water;" we agree with him, and offer our hints with some distrust of our ability to advise him. The writers on the subject whom we have consulted, recommend a course different from his in some respects. They say that the night, and cool or cloudy weather, are to be preferred for bringing on the water. They also give a general rule, that no water should be applied, (unless in time of drouth,) when the grass is tall and full grown, as it might cause it to lodge, might make it gritty, or give it an unpleasant taste.

From the New England Farmer.

Soiling Cattle.

Soiling is a term applied to the practice of cutting herbage crops green for feeding or fattening live stock. We have repeatedly discussed this subject in the course of our editorial labors, and given the opinion of our best practical farmers, that, in this country, owing to the high price of labor, and the comparative cheapness of land, soiling to any considerable extent cannot be carried into effect with that regard to economy, which is the polar star, while theory is too often the *ignis fatuus* of agriculture. It may not be amiss, however, to attend a little once more to the advantages and disadvantages of this mode of feeding, and having looked again at both sides, we shall be the better able to discern the right side of the question.

The celebrated Arthur Young observes, that "It a question which demands the young farmer's very serious attention, whether he should comply with the more common custom of feeding off certain crops, or whether he should determine to pursue the soiling system of mowing and giving them green in the stables, stalls, yards, &c. Considering the decisive superiority of the latter mode of consumption, there is not a fact in husbandry which ought to create so much surprise as the general custom, all over the kingdom, of feeding cows, young cattle, oxen, bullocks, &c. in the field; and the almost general practice of managing the teams in the same way. Enlightened farmers have in many districts adopted this system for horses, but still reject it for cattle; and it will probably take a century to render it as universal as it might be, most profitably. The objections to it are not of any importance, even if stated in the strongest manner; it has been argued that the expense is an object; and that cattle will not thrive so well, nor will cows give so much milk as if fed in the field. That the expense is something, cannot be denied, but that it amounts to any thing considerable, is contrary to fact. Mr. Mure fed 240 fattening oxen in sheds through a whole summer by the mowing of one scythe; if the attendance upon the beasts be added to this amount, the whole will evidently come to a sum, which when divided either per head or per acre, will be so low as to do entirely away this objection. These beasts were all sold fat at Smithfield, and did as well as similar beasts had done, when fed abroad in the most favorable seasons, and better than in any summer not remarkably favorable. I practiced it for several years together very carefully for fatting cattle, weighing alive periodically, both while in stalls and when at grass, and I found that in soiling they throve better that when abroad." * * * * * * *

"Every one knows how tormenting flies are to cattle when abroad; ride into a field in summer to look at stock, and where do you find them? Not feeding, but standing or resting under trees, in ponds, in rivers, and if there is no better shelter, in ditches under brambles; in a word, any where but feeding in the open air. What they graze is in the morning and evening; and in many cases they lose in the heat of the day all they gain at those moments of their comfort. To this superiority we must add that of the main object, which is the dunghill; in one case this is accumulated in a degree even superior to what is effected in winter; in the other it is scattered about the pastures, and nine-tenths of it carried off by the flies, or dried almost to a *caput mortuum* in the sun."

On the other hand, Mr. Bartholomow Budd, an English agriculturist of eminence, in a letter to John Hare Powel, Esq., published in "Hints for American Husbandmen," observes, "You read much in our English publications of the excellency of *soiling cattle* in the house during the whole of the year. I do not approve of this practice, for it is surely an unnatural one, as air and exercise and the selection of their own food must benefit cattle, as other animals are benefitted by them. I can say, from actual experience of the two systems, that cattle *thrive much better* in the fields during the period from the middle of May to the middle of November, than they do when confined in a house."

The fact is, that soiling and pasturing at large may both be practiced by most farmers to good advantage. On all farms, under correct management, a part of the food for some sorts of stock is cut and given to the animals green, in yards, racks or stables, and this constitutes what is technically called *soiling*. Working horses and oxen and milch cows are often fed in that way in part with less trouble, as well as with more economy, than letting them always run at large in pastures, where they are apt to be out of the way when wanted. Some precautions are necessary in feeding animals with green fodder. They should not be indulged with too much food at a time, and it should never be such as has been lying in a heap till it has become hot, because in such case it is not only difficult of digestion, but apt to cause inflammatory and putrid disorders.

Mr. Lawrence, an English writer, advises farmers to keep a digesting place for cattle; that is, a piece of short grass where they can find but little to eat, and must consequently use sufficient exercise in getting it. This is good counsel, and whenever an animal has been injured by excess in eating, or is suffering in consequence of having eaten food of a bad quality, let it be put on a scanty allowance in a short pasture.

Valuable Cow.—A cow three years old, of the improved Durham short-horned breed, and her two calves, one eighteen and the other nine months old, property of Mr. William L. Sutphin of this vicinity, were weighed on the scales in this village last week. The Cow weighed 1160; the calf eighteen months old, 850; and the one nine months old, 620. They have all been kept on grass during the summer, and the cow has produced one pound of butter per day for the last eight months. We think Mr. S. may safely challenge the county of Monmouth to beat him in raising cattle.

Query.—Would it not be more profitable for farmers to keep one or two such cows as the above, than eight or ten of the common kind.—*Monm. Enq.*

From the Ohio Farmer.

Cultivation of the Orange, Lemon, &c.

This beautiful family of plants, embracing the orange, lemon, shaddock, citron, lime and their congiers, is one of the richest ornaments in the green-house. All the varieties are almost as easily raised as the peach tree, and being sufficiently hardy to withstand a slight freezing, if rightly protected, can be secured, with a little trouble, during the severest winter weather.

1. *Stocks.*—The lemon furnishes the best stocks. Sow the seeds of ripe fruit in crocks, filled with a compost of new earth, from under rotton logs or stumps, garden mold and decayed cow-dung, each one part, very fine and intimately mixed. These crocks should be plunged to their rims in the earth within a well regulated hot bed, early in the spring, and their contents be regularly watered.

When the young plants are one inch high, they should be thinned out and transplanted, one to a pot, taking care to leave, undisturbed, one of the largest, which is to remain for inoculating during the present season.

Continue to water the seedlings daily, and after stir the earth about their roots with a knife or spatula. When they are removed from the hot-bed place them in a situation protected from cold, northern winds, and also from a full exposure to the full blaze of the noon-day sun.

2. *Budding.*—There are *two* periods when this can be performed successfully. To wit: during the *first* growth of the stock in the month of June, and the *second* in the month of August. This state can be detected by the absence of the terminal buds on the ends of the limbs and the ease with which the bark separates from the wood.

The buds used for insertion during the *former* period should be taken from the *last* growth of the preceding year, and during the *latter* from the *first* growth of the present season.

Select the roundest and fullest buds, and if possible those that are not armed with a thorn or spine from trees which are abundant bearers.

Make choice of a smooth place, upon the stock, and proceed as in common inoculation, only place the transverse incision below the perpendicular one, so as to resemble the letter T inverted thus ⊥, so that the buds when inserted shall be pushed upwards instead of downwards. It may sometimes be convenient, with small stocks, to remove the dirt about the roots, and insert the bud below the surface. Having made the transverse and perpendicular incisions, cut out, immediately below the latter, a semi-circular notch, thus ⌒ for the purpose of facilitating the introduction of the bud between the lips of the bark. Do not attempt to separate the thin film of wood that adheres to the inner surface of the bud. When the bud has been carefully pushed into the perpendicular incision, secure it there with a strip of Russia matting or linn bark that has been long macerated in water: take care not to pass it directly over the eye of the bud.

The pots should then be placed entirely out of the reach of the sun, but not underneath the eves of a house or limbs of a tree. Water the plants daily, but use special care not to permit the water to run down the stock, as it would destroy the inoculation.

At the end of two or three weeks the foot stalk of the leaf of the bud will drop, and the stock begin to swell above and below the ligature, which should now be removed or loosened. If it be in the month of June, cut off the stock about 3 inches above the inserted bud, and in a few days the second growth will commence, and that bud will burst forth with great vigor. If it be in August, delay cutting off the stock until the ensuing spring, unless there is an evident disposition to put forth by the bud, which sometimes happens late in the summer.

In one instance the writer of this article had an inoculation six inches high in November, growing on a stock raised from a seed sowed in the month of March of the same year, and in three years it had upon it six large and ripe oranges.

3. *Fruiting.*—As soon as the blow-buds begin o show themselves, the compost should be

changed in the tops of the pots, and this should be repeated every six weeks until the fruit is mature. During the whole of this period the trees require extra quantities of water, particularly at the time the young fruit is setting.

If an excess of fruit should form, it should be picked off.

During very cold weather and while the trees are not in active growth, they require much less water.

4. *Protection in Winter.*—They can be protected in a healthy state in almost any tight parlor or setting room, provided they are not exposed too directly to the scorching heat of the fire, and are furnished with a frequent supply of fresh air.

Milk Weed.

Since our remembrance the milk weed was considered as noxious as the thistle, and its destruction sought with the same avidity by every good farmer. Our mothers used to gather the contents of the pod for upholstry purposes, but they were thought of little value, and as many supposed, deleterious to health. Now the milk weed, or silk grass as some call it, is considered one of the most valuable of all our indigenous plants. It has long been used in Canada for culinary purposes, as a substitute for asparagus. It is easily cultivated, by gathering the seeds in the fall and sowing them early in the spring in drills, taking care that the ground be well manured and pulverised, and that they be covered about one inch deep. They vegetate slowly and make their appearance after four or five weeks. After two years they should be taken up and set in a trench about eight inches apart and six inches deep. The following spring, when the young shoots are four or five inches from the ground, they may be cut and served up in the manner of asparagus, and by most epicureans, will be pronounced to be equally delicious.

It may also be propagated by cuttings of the root. The plant has long roots with eyes. These may be cut off in pieces five or six inches long and planted in trenches, care being taken to place them in the trench obliquely with the eyes up, and to cover them about six inches deep. This may be done either in the fall or spring, but if omitted till spring it must be attended to early before the milk has ascended the stalk. Gen. Dearborn of Roxbury, in an article on the milk weed, in a late number of the Massachusetts Horticultural Register, from which we have gathered the foregoing methods of propagation, &c. thus speaks of the silk, and the uses to which it is applied.—*Balt. Farmer.*

"The silk, when taken from the pods, and being freed from the seeds, is hung up in thin bags in the sun, and when perfectly dry may be used without any further preparation, instead of feathers, horse hair, wool or cotton, for cushions, bolsters, pillows, matresses, and coverlets. From eight to nine pounds is sufficient for a bed, bolster, and 2 pillows. It is higher and warmer, when used in forming coverlets or comforters than cotton, or wool, and is nearly equal to eider-down.

For spinning, the staple of the silk is too short, when taken alone, and therefore is combined with flax, wool, cotton, or raw silk.

One third of this silk, with two thirds of cotton, forms a very excellent mixture for gloves, stockings, and other articles of like manufacture. One part of this silk and two of rabbit's fur forms hats exceedingly light, soft to the touch, glossy, and which have a great resemblance to beaver hats.

Besides the above named articles manufactured from the silk, I recollect having seen at several of the annual exhibitions of the Massachusetts Agricultural Society, in Brighton, tippets, capes, bonnets, and various other articles, which were very beautiful. They were formed by sewing the tufts of silk by the part which is attached to the seed, to linen, cotton, or silk cloth in rows, one overlapping the other, like the shingles on a roof. They had the appearance of the most delicate and rich fur; and so simple was the work that a child could execute it.

For embellishing the outer borders of pleasure grounds, the skirts of roads, avenues, clumps of trees, the sides of groves, and to intermingle with shrubs, all the American varieties may be used with picturesque effect.

On examining some botanical works, since writing the above, I found that Parkinson had received the *Syriaca* from this country, and cultivated it in his botanical garden of rare plants as early as 1629. He called it Virginia silk, and it was stated that the French Canadians were in the habit of eating the tender shoots as substitutes for asparagus.

It is but little trouble to form in every garden, side by side, beds of dandelions, seakale, milk weed, and asparagus, which from the last of March until the green peas appear, will afford a daily and various supply of delicious vegetables. They are all perennial plants, and when once set out, and properly taken care of in autumn and spring will yield abundant crops, for all time, without renewal.

Wheat Worm.

During the current month, this enemy may be expected to appear again in our wheat fields; and it may be expected to extend its ravages south and west into Columbia and Oneida. It is extremely desirable to collect information in regard to the habits of this insect, and the means, if any should be discovered, of averting the evils which it is likely to inflict upon the land. We would therefore respectfully request men of science as well as farmers, to note down the observations they may make, and to transmit to us the result for publication, particularly such as may tend to solve the following queries:

1 When does the maggot make its first appearance, and what is the term of its continuance in that state?

2 What are the transformations, if any, which the insect undergoes, and at what intervals do these transformations take place?

3. Has steeping the seed in lime water or brine according to the recommendation of Bauer, been found to be efficacious in lessening or averting the evil?

4. Has the sowing of quick lime upon the crop, when in blossom, or subsequently, or other topical application, been found to be beneficial?—And,

5. What per cent injury has the wheat crop sustained in consequence of these insects?

After writing the above, we saw and conversed with Mr. Edward Haswell, a very intelligent and observing farmer of Bethlehem. He says that early sown wheat, and that growing on dry ground, was least, and some of it very little affected by the grain worm last year; that the worm made its appearance in great numbers at once, and not by degrees; that he sought for them almost daily, and that the first day he saw them, he found from six to ten on a single grain; and that he saw no fly from which they could probably have proceeded. Mr. Haswell thinks lime has no efficacy in destroying them. He sowed it many successive mornings, when the wheat was in blossom; he covered the heads of grain with it, and immersed them in lime water, and still found the worm in the heads thus experimented upon, wholly unaffected by it. The lime, however, had been some time on hand, and had become, undoubtedly, mild or effete. Mr. H. tried spirits of turpentine with as little effect.—Mr. Haswell's observations rather favor the opinions of Bauer, as published in the first volume of the Cultivator,* that the insect is propagated, like smut, *through the circulation of the sap.* He detailed several cases where seed from an unaffected crop, sown by the side of seed from an affected crop, had remained uninjured, or nearly so, while the crop from the affected seed was nearly destroyed. He has found the worm in abundance, this spring, in the wheat of last year, when threshing it in his barn. From this it would seem that the worm is continually multiplying, as described by Bauer, or that it remains a long time as a maggot ere it changes to a chrysalis, and that, like some of the aphides, it produces several generations with one copulating.

* [See Gen. Far. vol. 4, page 121.]

Fisher on the Vine.

OBSERVATIONS on the Culture of the European Vine, to which is added a Manual of the Swiss Vignerons and the art of Wine making, translated from the French—Price 75 cents. For sale by
june 20 HOYT & PORTER.

Red Clover and Timothy Seed.

A FEW bushels just received at the Rochester Seed Store.
REYNOLDS & BATEHAM.

150 lbs. Lucern Seed,

OF fine quality and proved vitality, for sale at a reduced price, at the Rochester Seed Store.
Also, A few thousand SILK WORM EGGS, just received and for sale as above.
REYNOLDS & BATEHAM.

FLOWER SEEDS.

A SPLENDID assortment of Annual, Biennial and Perennial Flower Seeds, put up in small papers at 6 cents each, or 20 varieties for $1, and 100 varieties for $4, for sale at the Rochester Seed Store.
REYNOLDS & BATEHAM.

Turnep Seed.

RUTA Baga or Yellow Swedish, Large White Flat or Globe, Large English Norfolk, Long Tankard or Hanover, Early White Flat Dutch, Long Yellow French, White French or White Swedish, Yellow Maltese, Dale's New Yellow Hybrid, and various other kinds for sale at the Rochester seed store.
REYNOLDS & BATEHAM.

Robbins' Patent Planting
MACHINE.

WITH this machine Corn, Beans, Pear, and all seeds of an oval shape can be planted with more system and correctness than can be done in the usual manner of planting with the hand and hoe.

One acre of ground can be planted, placing the seeds any given distance apart, from two or more inches, and rows two and a half feet between, in three hours time.

Machines can be had by applying to C. N. BEMENT, Treasurer of the State Agricultural Society, Albany; BUSHROD BUCK, Lanesborough, Berkshire county, Mass; and DANIEL I. BUCK, Lowville, Lewis county, agent and proprietor for making and vending said machines, at all of which places it is intended to keep a supply on hand.

☞ The above machines are for sale at Reynolds & Bateham's Seed Store, Rochester.
Lowville, March 25th, 1835. ap 14-tf

A Valuable Farm For Sale.

THE valuable FARM owned and occupied by Elias Beach, 4 miles west from the city and situated directly on the Erie Canal, containing 240 acres of good wheat and grass soil, well watered, with good house, barns, out houses, &c. Five thousand dollars will be required in cash, and the balance may remain on bond and mortgage for a term of years. Title indisputable. The price per acre may be learned on inquiring of JAMES H. WATTS, at No. 3 Exchange-street, Rochester, and the owner will at all times be ready to give further particulars on the premises. ap 18-tf

Monroe Horticultural Garden & NURSERY.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, &c. &c.

ALSO—A few hundred of the Morus Multicaulis, or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for Mr. Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them, gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.
Greece, Monroe co. N. Y. Sept. 13, 1834.

The Farmer's Song.

I envy not the mighty king
  Upon the splendid throne—
Nor crave his glittering diadem,
  Nor wish his power mine own:
For though his power and wealth be great,
  And round him thousands bow
In reverence—in my low estate
  More solid peace I know.

I envy not the Miser—he
  May tell his treasures o'er,
May heaps on heaps around him see,
  And toil and sigh for more:
I'd scorn his narrow sordid soul,
  Rapacious and unjust;
Nor bow beneath the base control
  Of empty, gilded dust.

My wants are few and well supplied
  By my productive fields;
I court no luxuries besides,
  Save what contentment yields.
More pure enjoyment labor gives,
  Than wealth or fame can bring.
And he is happier who lives
  A Farmer, than a King.

"Fifteen Minutes Before the Time."

If there is any one principle to which the formation of my character has been chiefly indebted, it is to this motto of a distinguished naval commander. Nobody ever waited for Lord Nelson. He made it an invariable rule to be present at every appointment, and to be ready for every enterprise, at least fifteen minutes before the time, and to wait rather impatiently the arrival of the moment allotted for action. When the hour had fully come, and the delay of others rendered it inexpedient to proceed, he looked upon his own obligation as cancelled, withdrew immediately from the place of rendezvous, and no inducement could ever prevail upon him to return.

The lesson inculcated in this motto is, to be in time for every duty. It should be the standard principle of every man who has any regard to himself, or any regard to those with whom he acts, to be truly punctual to all his engagements. To himself it is a rule of incalculable importance, and applies to every occupation and every pursuit. The ancients represented time under the similitude of an old man, with a single lock upon his forehead, gravely but steadily approaching an assembled multitude—and whoever seized this lock, and held him by it, was borne onward with the most assured pledge that could be given, of future success. But if any suffered him to pass them, he spread the wings, which till then were concealed behind him, and flew away with a rapidity which rendered pursuit utterly vain. Hence the homely adage, "Take time by the forelock." Better be fifteen minutes too early than one too late. Too late! Alas, what a crowd of sensations cluster around that ill-omened phrase! The disappointments how numerous! The disasters how sad! The consequences, O who can trace them, as they reach through all future time and embosom themselves in the abyss of eternity!

The importance to one's self of being before the time, may, perhaps, be more clearly illustrated by an example. I have in my eye a young man who was my classmate in college. There was nothing in the structure of his mind or in its development peculiarly striking. It seemed to me a mind cast in the ordinary mold, with no stamp upon it of either genius or brilliancy. But I marked the regularity with which he attended upon all the duties of the institution. He was ever before the time in the chapel, the recitation room, the society's hall, or wherever else there was a just claim upon his presence and attention. Nor did he ever offer as an excuse that he was unprepared for any exercise to which he was properly called. He took time by the forelock, and had his lessons all thoroughly digested long before the hour of recitation arrived. His essays were all written a week in advance of the time when he expected to read them, and, as leisure offered, he would frequently remodel and rewrite them. He left nothing to be done at the eleventh hour; but carried out the principle of punctuality into every thing that concerned him. The result was, he left many of his class lagging behind, while he pressed onward with increasing energy, and making every day a sensible increase to his stock of knowledge. He was at last graduated with a distinction which he had not hoped to attain; and, without entering into the minute particulars of his after life, suffice it to say that he became a minister of the everlasting Gospel, where he carried out this same principle in his preparations for the sactuary, in his family, in his parochial visitations, and in the meetings of ecclesiastical councils. Whoever else was behind the time, with him there was but one undeviating rule. He was never tardy—never unprepared; and by this means he acquired that vigor of thought, that energy of style, and pathos of utterance essentially requisite to distinguished usefulness as a herald of the cross. There was nothing tame, or imbecile, or common-place in any of his efforts. To *himself*, then, his habit of punctuality was amazingly useful. And not less so to others than to himself. This example has had a powerful influence in procuring a similar habit among all those who were within its range. Nor has he failed to impress the duty by those arguments which every ingenuous mind will admit to be unanswerable. What right have I to cause a number of men whom I have engaged to meet at a particular hour, not only to waste their time, but to become impatient and fretful by my delay? I rob them of that which I can never restore—the precious hours thus worse than wasted—I set a pernicious example—I betray an important trust—I tantalize with the sensibility of those whom I am bound to respect, and cut off a portion of their usefulness. In an individual case, the loss which I have occasioned may be small, but in the aggregate, the amount exceeds belief.—*Christian Observer.*

Value of Hops in the Diseases of the Skin.—One of the best external applications for many eruptive diseases of the skin is a strong decoction of Hops, in which the limbs or other affected parts are to be bathed several times a day. The decoction should not be used until it has become perfectly cold. In bad ulcers of the leg the most satisfactory results have been repeatedly realized from this simple preparation.—*Med. Intel.*

Note by the Editor of the Farmer and Gardner.—We do not question the efficacy of Hops in cutaneous affections; but one of the best and surest remedies we have ever used, is a solution of chloride of lime and spirits—(we have generally used spirits of wine.) We have known tetters which had assumed a chronic form, to yield to the treatment after being bathed in the solution two or three weeks—in one case, the tetter had for 18 months resisted every other application, and during that period, the skin had been twice burnt off by corrosive sublimate, and was ultimately cured by being washed with the solution. It is one of the most efficacious gargles which can be used in cases of obstinate sore throat.

With respect to the treatment of bad ulcers of the leg, we would, in addition to the hop embrocation, powder the ulcerated part with charcoal finely pulverized, after each bathing.

Rural Taste.—I regard the man who surrounds his dwelling with objects of rural taste, or who even plants a single shade tree by the road-side as a public benefactor; not merely because he adds something to the general beauty of the country, and to the pleasure of those who travel through it, but, because, also, he contributes something to the refinement of the general mind;—he improves the taste especially of his own family and neighborhood. There is a power in scenes of rural beauty to affect our social and moral feelings. A fondness for these scenes is seldom found with coarseness of sentiment and rudeness of manners. One may judge, with confidence, of the taste and intelligence of a family by the external air of their dwelling. In my excursions in the country, if I pass a habitation, however spacious, standing naked to the sun, with nothing ornamental, nothing inviting, around it, I cannot help saying to myself however abundant may be the slovenly possessions of its owner, there is no refinement in that house; there is no delicate and kindly interchange of sentiment among its inmates, and if ever they are sociable, their sociableness consists in rude and fitful loquacity. Their books are few, and those illchosen and unread. But if I notice a dwelling, however humble, which is apparently as snug as its owner has means to make it, displaying neatness and taste in its fences, and shades and shrubbery, and flower-pots at the windows,—I feel assured that this is the abode of refinement; this is the home of quiet and rational enjoyment, of intelligent and kindly intercourse.—*Christian Specta.*

Woodside's Revolving Harrow and Seed Cart.—The subscriber respectfully informs the members of congress, and the public generally, that this implement has been repeatedly tested in the presence of many practical and scientific agriculturists, who acknowledge its great value and importance to farmers; as a proof of which he offers the following testimony, which he conceives amply sufficient as regards the advantages to be derived from the use of it. In addition to which he can with propriety warrant his improvement in harrowing to give an increase of 15 per cent. in any crop of small grain to which it may be applied. And to give further evidence of the value of this implement, as regards the saving of labor, he does not hesitate to say, and will prove to them by actual experiment, that it will do more work in the same given time, and in far better style, with three horses and one man, than six common harrows.

During the present session of Congress, the implement will be put in operation, and the subscriber most respectfully invites the members of both houses to witness the same. Due notice will be given of the time and place selected for the exhibition.

The implements are manufactured in Washington city, under the superintendence of the subscriber, who warrants them to be finished in a workmanlike manner, and of good materials. All orders will be promptly complied with; and as the season for harrowing is fast approaching, he would respectfully request those who are disposed to patronize him, to forward their orders as early as possible, so as to afford time for having the implements made before they are wanted.

The cost of the Harrow, Cart, and Seeding apparatus, complete, is 120 dollars. If desirable, a tongue can be attached instead of shafts, to work with oxen.

Any communication (post paid) respecting the purchase of a right or rights, will meet with prompt attention.

James D. Woodside, *Patentee.*
Washington, Deccember, 1834.

The U. States Teaching Lessons to Europe.—What were thought the dreams of visionaries, respecting the rapid march of our country, in the progress of civilization and improvement, are beginning already to be realized. Our prison systems have been visited by special commissioners from European governments, who have thought them worthy of adoption in preference to their own antiquated and imperfect institutions. And we now learn by the Harrisburg Chronicle, that European railroad stock companies have sent agents to America to examine our modes of constructing these routes, and that they have reported in favor of "the boldness of design and solidity of execution" of those of Pennsylvania over all others. Our infant republic is already beginning to teach lessons to the old world—the child instructing the parent, who had thought herself too wise and experienced to learn. These are the results of the expansion of mind, produced by free laws and a free press and the general diffusion of education.—*N. Y. Star.*